

Application No. 10/849,517

Docket No.: H6308.0056/P056

REMARKS

Claims 8, 12, 14, and 16 are amended. Claims 9 and 15 are cancelled. Claims 1-8, 10-14, and 16-31 remain pending in the application. Applicants reserve the right to pursue the original and other claims in this or other applications. Applicants gratefully acknowledge the allowance of claims 1-7 and 26-31.

Claims 8-25 are rejected under 35 U.S.C. § 102(e) as being anticipated by Makarov. The rejection is respectfully traversed.

Amended claim 8 recites a mass spectroscopy system comprising "a mass spectroscopy data acquisition means for performing the selection and dissociation of an ion species n-1 times ... and acquiring a peak measurement intensity against the mass-to-charge ratio of the ion that has been selected and dissociated ... and next analysis content determination means for determining the analysis content in an n-th stage mass spectroscopy based on the result of determination by said correspondence determination means." Amended claim 14 recites similar limitations. Makarov fails to disclose these important limitations. Claims 10-13, and claims 14, 16-22 depend from claims 8 and 14, respectively and should be allowed with claims 8 and 14, and on their own merits.

Claims 23 recites a mass spectroscopy apparatus comprising "a first database in which a data sequence of an analysis object candidate substance is recorded." Makarov fails to disclose these important limitations. Makarov states "[t]he resulting data are processed by data acquisition system 110 which converts the raw time intensity data into mass spectral data (mass-intensity) ... [t]hese data can then be transferred to a data storage and analysis computer (not shown) where various mass spectral data analysis and searching tools can be applied to analyze the data." The present application differs from Makarov in that data – additional to the data of an analysis object candidate substance – is recorded. In the present application, when data within the database is compared with real-time data to determine if it corresponds to the real-time data, a control portion is present. This control portion issues an instruction to select a substance as an analysis object ion, so that a tandem mass spectroscopy may be conducted.

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Additionally, Makarov does not disclose: database recording that occurs in real-time, database collation and determination that occurs in real-time, or real-time data-base analysis. As such, Makarov involves transferring measured data acquired from a series of mass spectroscopy processes. However, this data is transferred after completion of the spectroscopy and the data analysis, as is the conventional method. In this conventional method, data analysis is performed after completion of data measurement. Consequently, even if a substance which should be obtained is detected during the data analysis, measurement must be performed again because the data measurement step has already been completed.

In contrast, the present application discloses substance determination performed in real-time. As such, once a preferred substance is identified and recorded – in advance – in the first database, a determination can be made in real-time so that if substance-data is found to correspond to a preferred substance, then the substance can be preferentially selected and analyzed. Consequently, efficiency of substance measurement is greatly increased.

Claims 24 and 25 depend from claim 23, and are allowable with claim 23, and on their own merits. Accordingly, the rejection should be withdrawn, and the claims allowed.

In view of the above, Applicants believe the pending application is in condition for allowance.

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Respectfully submitted,

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